

ABSTRACT

In a valve disposed between a fluid supply and a socket of a chuck and configured to regulate the flow of the fluid to the socket. There is a seal screw for modulating a preload tension. This seal screw has a first sealing surface. The valve further includes a second sealing surface in opposing relation to the first sealing surface and an elastomer seal ring disposed between the first sealing surface and the second sealing surface. The valve is configured to form a seal between the first sealing surface, the second sealing surface, and the elastomer seal in response to a force less than or equal to the preload tension being exerted in line with the seal screw. In this manner, the valve is configured to allow the flow of the fluid between the first sealing surface and the second sealing surface in response to a force exceeding the preload tension being exerted in line with the seal screw.